

## Natural Features and Ecosystems

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Much of Canaveral National Seashore (CANA) is comprised of a barrier island ecosystem. A narrow island 24 miles in length separates the Atlantic Ocean from Mosquito Lagoon. On the east side of the island lies a sandy beach. The beach is backed by a single dune ridge, averaging 12 feet in height; however, in some areas, the dune has been obliterated by storm overwash. The backside of the dune is gradually sloping and anchored by a dense growth of vegetation. High marsh, mangrove and pockets of live oak/cabbage palmetto hammock occur along the shore of Mosquito Lagoon. Wider sections of the island show where former inlets existed.

Mosquito Lagoon is about one mile wide and averages four feet deep. It is basically a dead end sack, connected to the ocean by Ponce de Leon Inlet, 10 miles north of the park and to the Indian River by the Haulover Canal, on the western side of the lagoon. As a consequence, there is little flushing and tides, primarily wind-driven, are measured in inches. Several characteristics distinguish the northern third of the Mosquito Lagoon from the remainder of the lagoon. It contains numerous islands, consisting of hammock, mangrove and high marsh vegetation, while the southern two-thirds of the lagoon is open. Also many small, intertidal oyster reefs occur in the northern portion of the lagoon. This is partially due to the closer proximity to Ponce de Leon Inlet.

Mainland portions of the park consist of pine flatwoods, liveoak/cabbage palm hammock and live oak scrub. A system of ridges and alternating swales can be seen in the south end of the park, revealing the location of former shorelines formed during prior geologic periods. The highest point in the park is actually man-made, a 35 feet high mound of oyster shells constructed by Native Americans between 800 and 1400 A.D. Called Turtle Mound, its summit offers a magnificent view of the lagoon, ocean and barrier island.

Several other significant man-made alterations should be also mentioned. A channel 12 feet deep is maintained along the northwest side of Mosquito Lagoon for the intercostal Waterway, which then extends eastward through the Haulover Canal about halfway down the west side of Mosquito Lagoon and into the Indian River. Because it is deeper than the rest of the lagoon, it attracts fish that prefer deeper water and it may serve as a sink for muck and associated pollutants, such as heavy metals. An even greater impact on the lagoon has been alteration of marsh areas for mosquito control. This included digging an extensive system of ditches, beginning in the 1920's, and construction of miles of earthen dikes in the 1960's and 1970's to create impoundments. Many of these dikes are now being breached or completely removed to reconnect valuable marsh areas with the lagoon system.